AAC Meeting

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November 19, 2003

Overview of Effort to Date

- Linear Collider Site Studies Have Been On-Going Since 1996 at SLAC and Since 1999 at Fermilab
- The Site Study Effort Has Focused on Identifying "Representative Sites" That Investigate Several Different Geological Conditions and Construction Techniques
- Several Representative Sites Have Been Investigated in Both California and Illinois
- Common Preferred Design Elements Have Been Identified While Other Design Aspects Have Been Eliminated From Consideration

Current Focus

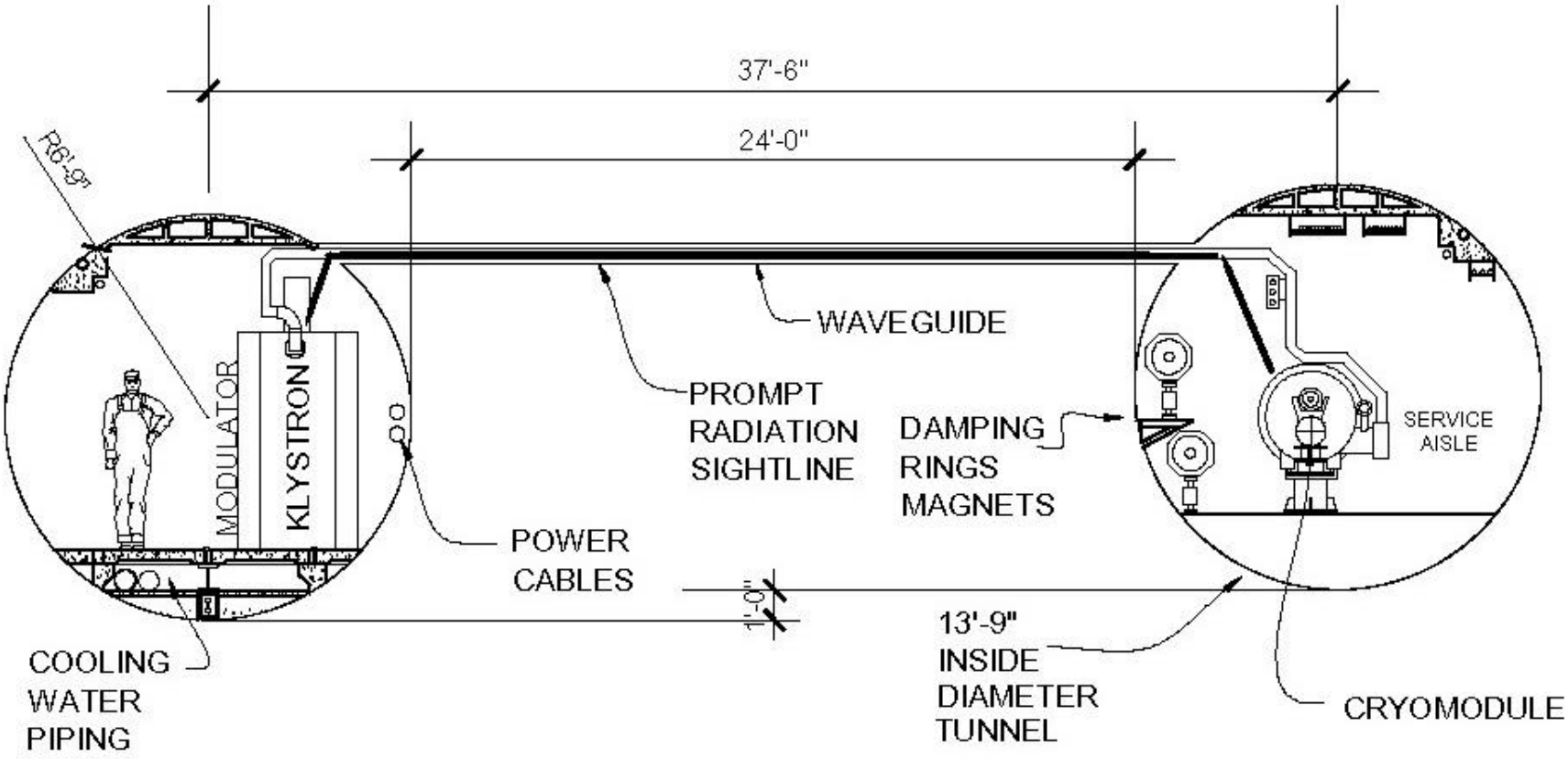
- Four Complete Design Solutions Have Been Developed and Will Be Included in a Report to the United States Linear Collider Steering Committee in December '03:
  - IL and CA Normal Conducting
  - Il and CA Superconducting
- Design Solutions Include Design Summaries, Cost Estimates, Drawing Sets and Project Schedule Information

Preferred Design Criteria

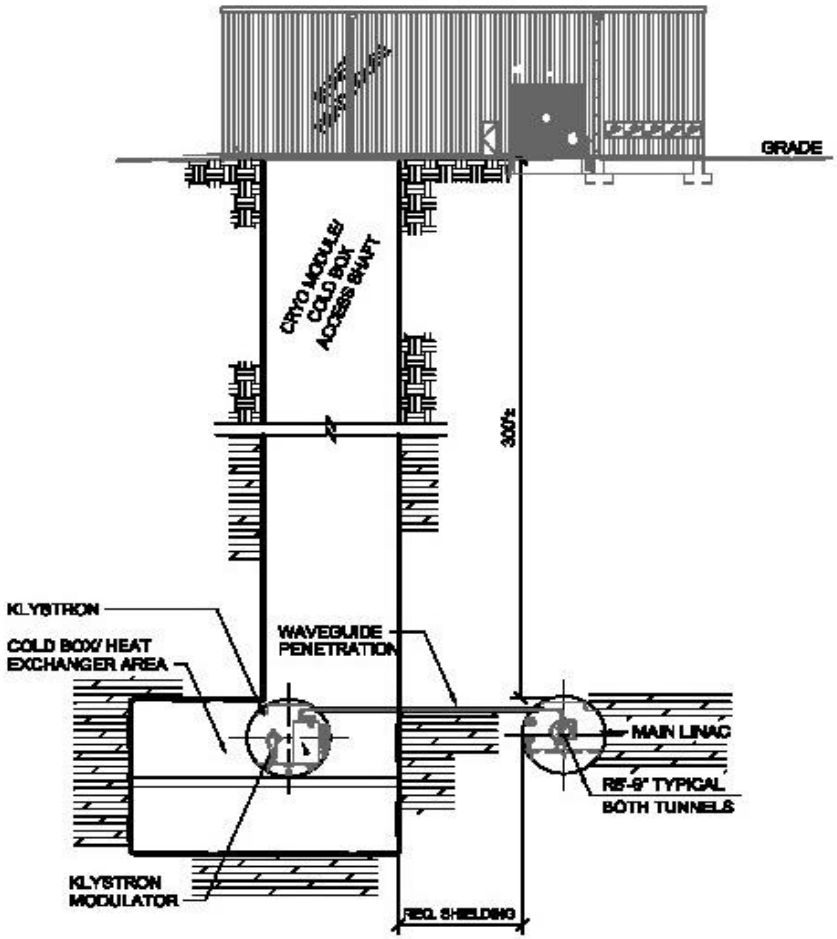
- Stable, Competent and Dry Rock Strata
- Adequate Power and Cooling Water Resources
- The Site Must Support the Overall Scale of Machine Layout and Requirements
- All Design Solutions are Based on a Parallel Tunnel Configuration - Accelerator Enclosure and Support Tunnel
- Current Sites are Located in Proximity to an Existing National Laboratory

NC and SC Comparisons

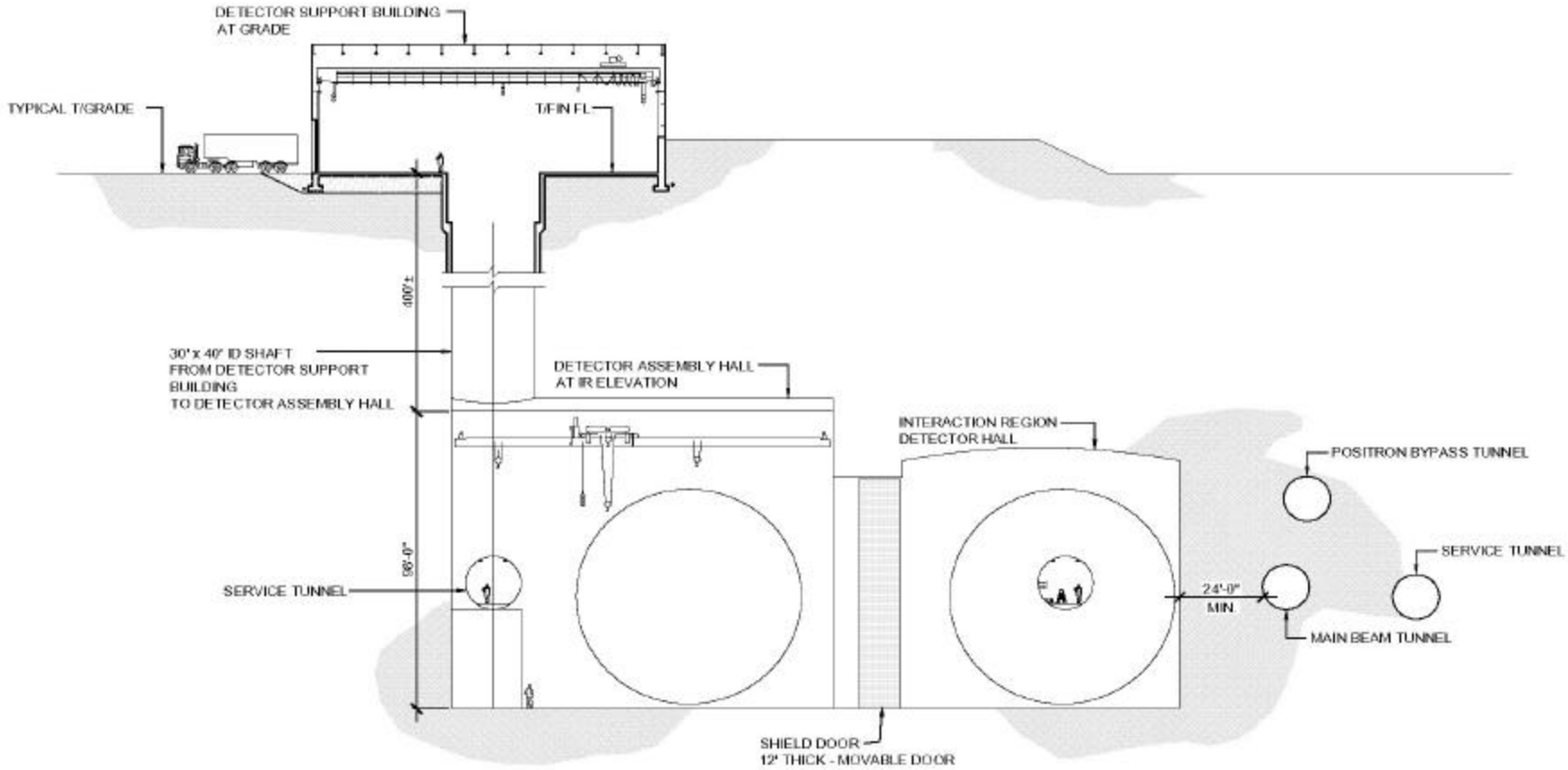
- SC Tunnel Length is Longer Due to Lower SC Accelerating Gradient
- A Complete Cryogenic Cooling System is Required for SC Collider
- SC Mechanical Cooling Requirements are Lower Than NC
- NC Power Requirements are Higher Than SC
- Comparable Access Requirements are Required for Both Machines
- Damping Ring Configurations are Different but Pose No Substantial Impact to the Construction Process
- Electron and Positron Sources, Beam Delivery, Interaction Regions and Grade Level Campus Buildings are the Same for Both NC and SC Machines



MAIN LINAC TYPICAL SECTION 2



TWO TUNNEL SOLUTION


DETECTOR SUPPORT BUILDING
AT GRADE
TYPICAL T/GRADE
T/FIN FL
100'-0"
30' x 40' ID SHAFT
FROM DETECTOR SUPPORT
BUILDING
TO DETECTOR ASSEMBLY HALL
DETECTOR ASSEMBLY HALL
AT IR ELEVATION
INTERACTION REGION
DETECTOR HALL
POSITRON BYPASS TUNNEL
SERVICE TUNNEL
98'-0"
SERVICE TUNNEL
24'-0"
MIN.
MAIN BEAM TUNNEL
SHIELD DOOR
12' THICK - MOVABLE DOOR
TYPICAL DETECTOR SECTION
COLD - IL

Efforts for FY '04 and Beyond

- Finalize Input to USLCSG Report by the End of November
- Review Existing Design Solutions to Identify Areas That Can Benefit by Further Design Refinement and/or Value Engineering
- Provide Any Further Documentation Needed to Support the Technology Decision Anticipated in January '05
- Review Cost Estimates and Project Schedule for Optimization of Both Time of Construction and Funding Profiles
- Develop an Understanding of What Will Be Required to Support the Process for US Hosting and Site Selection for a Linear Collider
- Develop a Resource Plan for FY '04 and Beyond to be Properly Prepared for Future Efforts